

**FINAL
OPERATIONAL RANGE ASSESSMENT PROGRAM
PHASE I QUALITATIVE ASSESSMENT REPORT
SIOUX FALLS AIRPORT TRAINING AREA
MINNEHAHA COUNTY, SOUTH DAKOTA**

DECEMBER 2008

Prepared for:

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EXECUTIVE SUMMARY

The United States (U.S.) Army is conducting qualitative assessments at operational ranges to meet the requirements of Department of Defense policy and to support the U.S. Army Sustainable Range Program. The operational range qualitative assessment (hereinafter referred to as Phase I Assessment) is the first phase of the U.S. Army Operational Range Assessment Program. This Phase I Assessment evaluates the operational range area at the South Dakota Army National Guard (SDARNG) Sioux Falls Airport Training Area to assess whether further investigation is needed to determine if potential munitions constituents of concern (MCOC) are or could be migrating off-range at levels that may pose an unacceptable risk to human health or the environment. In conducting the Phase I Assessment, MCOC sources, potential off-range migration pathways, and potential off-range human and ecological receptors are evaluated as appropriate.

Sioux Falls Airport Training Area is located in Minnehaha County northwest of the city of Sioux Falls, South Dakota. The SDARNG uses the training area to train its soldiers in support of achieving its various missions. An update to the Army Range Inventory Database-Geodatabase (ARID-GEO) was submitted to the U.S. Army Environmental Command in December 2005. The ARID-GEO (2005) identifies one operational range, which is eligible for the Phase I Assessment and covers 0.60 acres. The total operational range area was derived from the Operational Use Area (total range area) acreage as reported in ARID-GEO (2005). A total of 8.55 acres are identified as other than operational area (ARID-GEO, 2005).

Potential MCOC source areas identified at Sioux Falls Airport Training Area consist of small arms range target and impact berms. In general, potential MCOC from primary source areas potentially impact soil as a source medium (i.e., target and impact berms). No release mechanism for potential MCOC to reach surface water was identified, given that the target berms and impact berms are stabilized with soil bags and a geogrid material limiting potential for erosion, the target berm is sheltered from the elements by a roof, and there is relatively low precipitation (annual mean of 24.87 inches). Because metals are relatively insoluble and have an affinity to soil particles, the impact berm is sheltered from the elements by a roof, and the precipitation is relatively low, no release mechanism for potential MCOC to reach groundwater was identified.

The operational range at Sioux Falls Airport Training Area is categorized Unlikely.

Unlikely – Five-Year Review

The one operational range at Sioux Falls Airport Training Area was categorized as Unlikely, totaling 0.60 acres. The range is a small arms firing range. Ranges where, based upon a review of readily available information, there is sufficient evidence to show that there are no known releases or source-receptor interactions off-range that could present an unacceptable risk to human health or the environment are categorized as Unlikely. Ranges categorized as Unlikely are required to be re-evaluated at least every five years. Re-evaluation may occur sooner if significant changes (e.g., change in range operations or site conditions, regulatory changes) occur that affect determinations made during this Phase I Assessment.

Table ES-1 summarizes the Phase I Assessment findings.

Table ES-1: Summary of Findings and Conclusions for Sioux Falls Airport Training Area

Category	Total Number of Ranges and Acreage	Sources	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	One operational range; 0.60 acres	Target and impact berms	None (no release mechanisms identified)	None (no potentially complete pathways identified)		Re-evaluate during the five-year review. No potentially complete pathways were identified.

ABBREVIATIONS/ACRONYMS

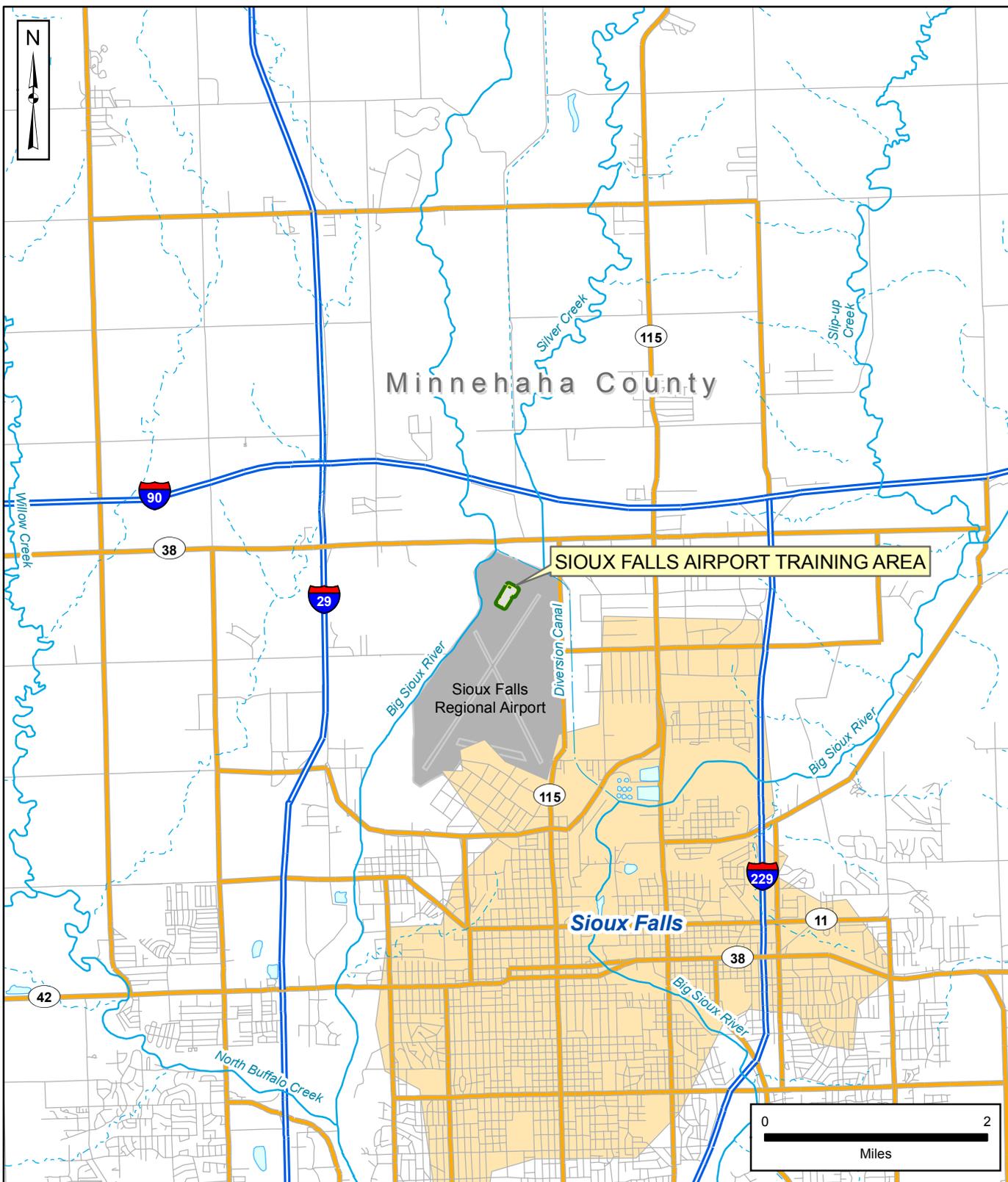
ARID-GEO	Army Range Inventory Database-Geodatabase
CSM	Conceptual Site Model
DoD	Department of Defense
DODI	Department of Defense Instruction
E	Ecological receptors identified. (This refers to range grouping; pathway designation always precedes E designation.)
gpd/ft	Gallons Per Day Per Foot
GW	Groundwater pathway identified. (This refers to range grouping; M designation always precedes GW designation.)
H	Human receptors identified. (This refers to range grouping; pathway designation always precedes H designation.)
HUC	Hydrologic Unit Code
LS	Limited Source
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MCOG	Munitions Constituents of Concern
mgd	Million Gallons Per Day
N/A	Not Applicable
NG	Nitroglycerin
ORAP	Operational Range Assessment Program
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
SDARNG	South Dakota Army National Guard
SW	Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.)
U.S.	United States
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Command
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey



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**Operational Range Assessment Program
Phase I Qualitative Assessment
Sioux Falls Airport Training Area, SD**

**Figure 1-1
General Sioux Falls Airport Training Area Location**



Installation

- Training Area Boundary
- Operational Area
- Other than Operational Area

Hydrology

- River/Stream (Perennial)
- Stream (Intermittent)
- Canal/Ditch
- Water Body

Transportation/Administrative

- Interstate
- Major Road
- Local Road
- Airport
- Urbanized Area

Data Sources:

AEC, ARID-GEO, 2005
ESRI, StreetMap USA, 2005

Date: December 2008

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Prepared For: U.S. Army

Contract: W912DR-05-D-0004